



Monthly Wholesale Trade

Sales and Inventories

October 1997

U.S. Department of Commerce
Economics and Statistics Administration
BUREAU OF THE CENSUS

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Sales. October 1997 sales of merchant wholesalers, after adjustment for seasonal variation and trading-day differences but not for price changes, were \$213.5 billion, unchanged (+/-0.6%) from the revised September level, but up 3.9 percent (+/-1.3%) from the October 1996 level. The September preliminary estimate was revised upward by 0.3 billion or 0.1 percent. Among durable goods, sales of hardware, plumbing and heating equipment were up 2.3 percent from last month and 5.7 percent above last October. Among nondurable goods, sales of farm-product raw materials increased 9.9 percent from last month and were 6.5 percent above October 1996.

Inventories. Total inventories of merchant wholesalers, after adjustment for seasonal variation but not for price changes, were \$269.7 billion at the end of October, up 0.6 percent (+/-0.4%) from the revised September level and were 5.5 percent (+/-2.8%) above October 1996. The September preliminary estimate was revised upward by 0.1 billion or 0.03 percent.

Among durable goods, inventories of both furniture and home furnishings, and electrical goods increased 1.2 percent from last month. End-of-month inventories of nondurable goods increased 1.6 percent (+/-1.1%) from September and were 5.9 percent (+/-2.9%) above October 1996.

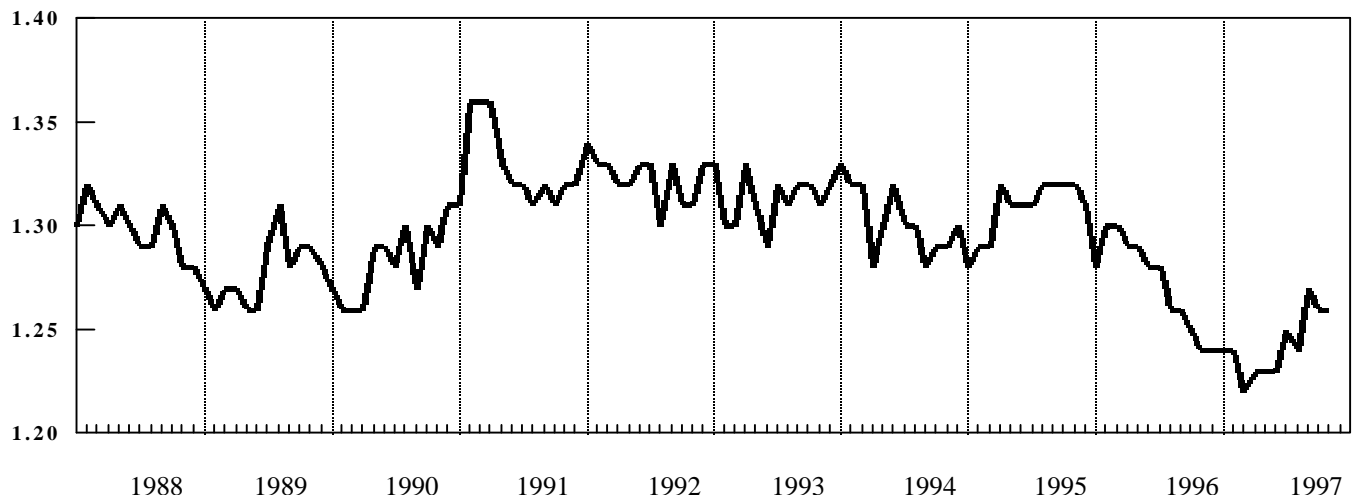
Inventory/Sales Ratio. The October inventories/sales ratio for merchant wholesalers, based on seasonally adjusted data, was 1.26. The October 1996 ratio was 1.24.

The scheduled release dates for 1998 are as follows: January 9, February 10, March 11, April 7, May 7, June 9, July 8, August 7, September 9, October 8, November 10, December 10.

Data in this report are based on a sample and, therefore, are subject to sampling and nonsampling variability. A discussion of the reliability of the data and general survey methodology appears in BW/96-RV Current Business Report.

Monthly Inventories/Sales Ratios of Merchant Wholesalers: 1988 to 1997

(Data adjusted for seasonal and trading-day differences, but not for price changes)



Monthly Wholesale Trade for November is scheduled to be released January 9, 1998 at 10:00 a.m.

Address inquiries concerning this report to Services Division, Bureau of the Census, Washington, DC 20233, or call Ronald Piencykoski, (301) 457-2779 or 457-2764. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

This report is available on day of issue through the Department of Commerce's online Economic Bulletin Board (202-482-1986). The data are also available on the internet - <http://www.census.gov/svds/www/mwts.html>.

Table 1. Estimated Monthly Sales, Inventories, and Inventories/Sales Ratios of Merchant Wholesalers: 1997 and 1996

[In millions of dollars]

SIC ¹ code	Kind of business	Sales						Inventories						Inventories/Sales		
		Monthly			Percent change			Monthly			Percent change			ratios		
		Oct. 1997 (p)	Sep. 1997 (r)	Oct. 1996 (r)	Oct./ Sep.	Sep./ Aug.	Oct. 97 Oct. 96	Oct. 1997 (p)	Sep. 1997 (r)	Oct. 1996 (r)	Oct./ Sep.	Sep./ Aug.	Oct. 97 Oct. 96	Oct. 1997 (p)	Sep. 1997 (r)	Oct. 1996 (r)
Adjusted ²																
	U.S. Total	213,457	213,372	205,490	0.0	2.4	3.9	269,657	268,112	255,526	0.6	1.2	5.5	1.26	1.26	1.24
50	Durable	110,858	110,970	105,035	-0.1	3.0	5.5	170,055	170,122	161,498	0.0	1.3	5.3	1.53	1.53	1.54
501	Automotive	19,233	18,858	17,524	2.0	6.2	9.8	28,431	28,663	27,225	-0.8	1.3	4.4	1.48	1.52	1.55
502	Furniture	3,637	3,669	3,613	-0.9	8.5	0.7	5,301	5,238	5,260	1.2	1.0	0.8	1.46	1.43	1.46
503	Lumber	7,335	7,298	7,364	0.5	-0.2	-0.4	8,183	8,193	7,821	-0.1	-1.0	4.6	1.12	1.12	1.06
504	Prof. equip.	21,687	22,122	19,752	-2.0	5.0	9.8	24,121	23,985	21,870	0.6	3.7	10.3	1.11	1.08	1.11
505	Metals	9,071	9,014	8,189	0.6	1.2	10.8	13,651	13,767	12,451	-0.8	0.1	9.6	1.50	1.53	1.52
506	Electrical	14,916	14,997	14,470	-0.5	-1.3	3.1	24,687	24,383	22,973	1.2	0.5	7.5	1.66	1.63	1.59
507	Hardware	6,369	6,223	6,026	2.3	-0.4	5.7	12,309	12,376	11,821	-0.5	0.8	4.1	1.93	1.99	1.96
508	Machinery	16,556	16,349	15,762	1.3	2.5	5.0	37,675	37,570	35,720	0.3	2.0	5.5	2.28	2.30	2.27
509	Other Durable	12,054	12,440	12,335	-3.1	4.2	-2.3	15,697	15,947	16,357	-1.6	0.3	-4.0	1.30	1.28	1.33
51	Nondurable	102,599	102,402	100,455	0.2	1.8	2.1	99,602	97,990	94,028	1.6	1.0	5.9	0.97	0.96	0.94
511	Paper	7,792	7,687	6,975	1.4	3.4	11.7	9,683	9,543	8,611	1.5	-0.7	12.4	1.24	1.24	1.23
512	Drugs	10,167	10,232	8,846	-0.6	-0.3	14.9	15,245	15,383	13,268	-0.9	0.4	14.9	1.50	1.50	1.50
513	Apparel	7,156	7,275	6,630	-1.6	1.0	7.9	13,208	12,635	11,335	4.5	0.1	16.5	1.85	1.74	1.71
514	Groceries	26,715	27,140	26,637	-1.6	-1.0	0.3	17,414	17,026	17,873	2.3	-1.9	-2.6	0.65	0.63	0.67
515	Farm-products	11,360	10,334	10,667	9.9	17.8	6.5	11,094	9,905	10,112	12.0	4.0	9.7	0.98	0.96	0.95
516	Chemicals	4,790	4,808	4,615	-0.4	1.2	3.8	4,956	4,921	4,655	0.7	0.3	6.5	1.03	1.02	1.01
517	Petroleum	14,789	14,938	16,101	-1.0	-3.6	-8.1	5,104	5,071	5,413	0.7	3.3	-5.7	0.35	0.34	0.34
518	Alcohol	4,923	4,976	4,659	-1.1	2.3	5.7	4,881	5,026	5,076	-2.9	1.9	-3.8	0.99	1.01	1.09
519	Other Nondur.	14,907	15,012	15,325	-0.7	4.5	-2.7	18,017	18,480	17,685	-2.5	3.7	1.9	1.21	1.23	1.15
Not Adjusted														Sales to date		
	U.S. Total	229,707	218,991	222,157	4.9	5.2	3.4	271,627	262,547	257,523	3.5	1.0	5.5	2,111,928	2,016,675	
50	Durable	120,626	116,551	115,259	3.5	7.9	4.7	169,740	168,740	161,276	0.6	0.3	5.2	1,090,970	1,039,137	
501	Automotive	20,099	18,236	18,611	10.2	6.2	8.0	28,260	27,946	27,116	1.1	1.9	4.2	183,481	175,881	
502	Furniture	4,062	3,930	4,072	3.4	15.6	-0.2	5,306	5,406	5,265	-1.8	0.6	0.8	35,588	36,175	
503	Lumber	8,200	7,809	8,299	5.0	-2.5	-1.2	7,864	8,037	7,516	-2.2	-1.9	4.6	75,342	72,512	
504	Prof. equip.	23,162	23,759	20,996	-2.5	13.8	10.3	24,266	23,529	22,001	3.1	2.4	10.3	211,022	191,204	
505	Metals	9,633	9,248	8,770	4.2	4.1	9.8	13,419	13,602	12,252	-1.3	-1.0	9.5	89,121	82,786	
506	Electrical	16,661	16,437	16,337	1.4	6.8	2.0	24,341	24,407	22,674	-0.3	-1.8	7.4	149,396	146,344	
507	Hardware	7,184	6,795	6,876	5.7	5.5	4.5	12,297	12,413	11,797	-0.9	0.7	4.2	63,518	58,938	
508	Machinery	17,450	16,529	16,755	5.6	6.4	4.1	37,788	37,006	35,791	2.1	0.2	5.6	161,705	156,536	
509	Other Durable	14,175	13,808	14,543	2.7	12.3	-2.5	16,199	16,394	16,864	-1.2	0.5	-3.9	121,797	118,761	
51	Nondurable	109,081	102,440	106,898	6.5	2.2	2.0	101,887	93,807	96,247	8.6	2.1	5.9	1,020,958	977,538	
511	Paper	8,314	7,964	7,484	4.4	3.1	11.1	9,780	9,228	8,680	6.0	-0.3	12.7	74,451	68,956	
512	Drugs	11,173	10,570	9,775	5.7	8.8	14.3	15,489	15,229	13,480	1.7	2.8	14.9	98,488	84,783	
513	Apparel	8,394	8,192	7,923	2.5	3.9	5.9	12,997	12,774	11,176	1.7	-1.2	16.3	74,696	64,028	
514	Groceries	28,024	27,059	28,155	3.6	-1.0	-0.5	18,511	17,264	18,963	7.2	2.7	-2.4	273,492	262,988	
515	Farm-products	12,235	9,807	11,584	24.8	19.4	5.6	11,915	7,072	10,830	68.5	4.9	10.0	97,230	107,800	
516	Chemicals	4,939	4,765	4,790	3.7	0.7	3.1	4,837	4,818	4,543	0.4	-2.3	6.5	47,246	45,147	
517	Petroleum	15,410	14,520	16,568	6.1	-7.7	-7.0	5,278	5,152	5,602	2.4	3.3	-5.8	152,831	144,746	
518	Alcohol	5,282	4,926	5,018	7.2	-1.3	5.3	5,369	5,287	5,589	1.6	7.5	-3.9	47,186	46,424	
519	Other Nondur.	15,310	14,637	15,601	4.6	5.2	-1.9	17,711	16,983	17,384	4.3	2.9	1.9	155,338	152,666	

p Preliminary estimate. r Revised.

1 For a full description of the SIC Codes shown above see the "1987 Standard Industrial Classification Manual" or the Current Business Reports

*Combined Annual and Revised Monthly Wholesale Trade" publication.

2 Data adjusted for seasonal variations and, in the case of sales, also for trading-day differences. See Table 3 for seasonal adjustment factors used.

Table 2. Coefficients of Variation and Standard Error for Sales and Inventories

SIC code	Kind of business	Coefficients of variation for level (x 100)				Standard error for trend				Coefficients of variation for level (x 100)		Standard error for trend
		Preliminary estimates		Final estimates		Ratio of two consecutive months		Year to Year Estimates		Cumulative sales estimates		Current year cumulative to previous
		Sales	Inv	Sales	Inv	Sales	Inv	Sales	Inv	C Y	P Y	year cumulative
		Median	Median	Median	Median	Median	Median	Median	Median			
	U.S. Total	1.0	1.4	1.0	1.4	0.4	0.3	0.8	1.5	1.0	0.8	0.7
50	Durable	2.1	2.2	2.1	2.2	0.6	0.3	1.5	2.3	2.0	1.2	1.4
501	Automotive	4.1	5.2	4.1	4.2	1.3	1.0	3.5	4.4	3.6	2.8	2.8
502	Furniture	5.8	7.2	5.6	7.2	2.5	1.0	4.5	10.6	5.5	3.9	4.0
503	Lumber	5.0	5.4	5.1	5.3	1.5	0.9	5.3	5.5	5.0	2.3	4.9
504	Prof. equip.	5.6	6.7	5.7	6.8	1.4	0.9	4.5	5.0	5.4	3.4	4.2
505	Metals	4.6	9.2	4.5	9.1	1.3	0.7	2.8	10.2	4.6	3.6	2.4
506	Electrical	4.9	4.2	4.8	4.1	1.3	0.5	3.5	2.9	4.7	2.8	3.3
507	Hardware	4.9	4.7	4.9	4.7	1.5	0.5	6.4	5.1	4.5	2.5	5.9
508	Machinery	5.4	4.6	5.6	4.7	1.8	0.5	4.9	5.3	5.4	2.0	5.0
509	Other Durable	4.5	6.6	4.4	6.4	1.6	0.9	2.8	6.0	4.1	3.2	2.0
51	Nondurable	1.9	2.0	1.9	2.0	0.6	0.3	1.4	1.4	1.8	1.3	1.2
511	Paper	3.4	3.7	3.5	3.9	1.0	0.4	3.0	4.0	3.3	4.9	3.5
512	Drugs	5.7	5.2	5.5	5.2	0.5	0.4	3.4	2.2	5.6	4.9	3.4
513	Apparel	4.7	7.7	4.8	7.8	2.3	0.8	4.7	5.7	4.6	3.0	3.4
514	Groceries	3.2	4.8	3.2	4.8	0.8	0.7	2.0	5.1	2.9	2.7	1.8
515	Farm-products	5.2	6.8	5.1	6.7	2.3	1.6	3.2	3.8	4.7	3.7	2.2
516	Chemicals	5.6	5.4	5.6	5.2	1.3	0.6	4.5	3.8	5.5	2.9	4.0
517	Petroleum	5.6	13.9	5.3	14.0	1.0	1.0	3.8	12.7	5.6	4.3	3.5
518	Alcohol	6.4	5.8	6.4	6.1	1.6	1.2	8.0	5.8	6.3	4.9	8.1
519	Other Nondur.	6.0	5.7	5.9	5.7	1.8	1.1	6.4	5.4	5.4	1.9	5.8

Note: The median measures of variability are based on the most recent 11 months of data.

Sample Design and Reliability of Data

There are two types of errors possible in an estimate based on a sample survey: sampling and nonsampling.

Sampling errors occur because observations are made on a sample, not on the entire population, and different samples could have led to different estimates. Standard errors and coefficients of variation, as calculated for this report, are measures of sampling variation. The margin of sampling error, as used on page 1, gives a range about the estimate which is a 90% confidence interval. If, for example, the trend estimate is up 1.2% and the standard error is 0.9%, then the margin of sampling error is $\pm 1.65 \times 0.9\%$ or $\pm 1.5\%$, and the 90% confidence interval is -0.3% to +2.7%. If the interval contains 0, it cannot be stated with certainty whether there was an increase or decrease. For monthly level, the coefficient of variation (CV) is given. The resulting confidence interval is the estimated value $\pm 1.65 \times CV \times$ (the estimated value).

Nonsampling errors are usually attributed to many possible sources: (1) coverage error - failure to accurately represent all population units in the sample, (2) inability to obtain information

about all sample cases, (3) response errors, possibly due to definitional difficulties or misreporting, (4) mistakes in recording or coding the data obtained, and (5) other errors of collection or processing, or in imputing for missing or inconsistent data. Coverage error has an effect on the accuracy of estimates for this survey to the extent that the administrative records system, which forms the basis of our survey universe frame, does not contain all legal businesses. A major source of nonsampling error in the published estimates is due to the need to impute data for nonrespondents and for late and inconsistent reports. For all kinds of businesses combined, imputed data amount to about 26 percent of the total monthly wholesale sales estimates and 28 percent of the total monthly wholesale inventories estimates.

Nonsampling errors also occur in complete censuses. Although no direct measures of these errors have been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data to minimize their influence.

Official Business

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Table 3. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers

SIC code	Kind of business	Sales					Inventories						
		1997					1996						
		Nov.	Oct.r	Sep.r	Aug.	Jul.	Oct.r	Nov.	Oct.r	Sep.r	Aug.	Jul.	Oct.r
	U.S. Total¹	0.952	1.078	1.024	1.005	1.009	1.081	1.008	1.007	0.978	0.980	0.997	1.007
50	Durable	0.950	1.090	1.055	1.002	1.012	1.101	0.994	0.998	0.994	1.000	1.013	0.998
501	Automotive	0.952	1.045	0.967	0.967	1.033	1.062	1.017	0.994	0.975	0.969	1.000	0.996
502	Furniture	0.993	1.117	1.071	1.006	0.997	1.127	0.989	1.001	1.032	1.037	1.020	1.001
503	Lumber	0.928	1.118	1.070	1.095	1.085	1.127	0.968	0.961	0.981	0.990	0.996	0.961
504	Prof. equip.	0.934	1.068	1.074	0.991	0.985	1.063	1.007	1.006	0.981	0.993	1.025	1.006
505	Metals	0.899	1.062	1.026	0.998	0.989	1.071	0.971	0.983	0.988	0.999	1.011	0.984
506	Electrical	0.980	1.117	1.096	1.013	1.005	1.129	0.992	0.986	1.001	1.025	1.027	0.987
507	Hardware	0.963	1.128	1.092	1.031	1.086	1.141	0.986	0.999	1.003	1.004	0.999	0.998
508	Machinery	0.907	1.054	1.011	0.974	0.997	1.063	0.993	1.003	0.985	1.003	1.009	1.002
509	Other Durable	1.053	1.176	1.110	1.030	0.941	1.179	0.996	1.032	1.028	1.026	1.038	1.031
51	Nondurable	0.949	1.066	0.998	0.993	1.015	1.067	1.031	1.024	0.954	0.944	0.969	1.023
511	Paper	0.931	1.067	1.036	1.039	1.022	1.073	1.019	1.010	0.967	0.963	1.008	1.008
512	Drugs	0.954	1.099	1.033	0.947	1.000	1.105	1.010	1.016	0.990	0.967	0.988	1.016
513	Apparel	0.968	1.173	1.126	1.095	1.092	1.195	0.964	0.984	1.011	1.024	1.034	0.986
514	Groceries	0.980	1.049	0.997	0.997	1.020	1.057	1.033	1.063	1.014	0.969	0.996	1.061
515	Farm-products	0.978	1.077	0.949	0.936	0.947	1.086	1.211	1.074	0.714	0.708	0.770	1.071
516	Chemicals	0.930	1.031	0.991	0.996	1.006	1.038	0.978	0.976	0.979	1.005	0.991	0.976
517	Petroleum	0.939	1.042	0.972	1.015	0.979	1.029	1.022	1.034	1.016	1.016	0.998	1.035
518	Alcohol	0.996	1.073	0.990	1.026	1.076	1.077	1.072	1.100	1.052	0.997	1.023	1.101
519	Other Nondur.	0.882	1.027	0.975	0.968	1.019	1.018	0.996	0.983	0.919	0.926	0.961	0.983



r Revised

1 Adjusted sales and inventories data shown in table 1 are obtained by dividing the unadjusted data by the adjustment factors shown above for the corresponding group. Adjusted data for the totals are obtained by adding the durable and nondurable goods. Seasonal factors shown for the totals will provide an approximation of the adjusted estimates, but may show small differences from the published data.

Note: The seasonal factors shown have been computed based on monthly estimates through the current month preliminary estimates.